

662260" B0540460

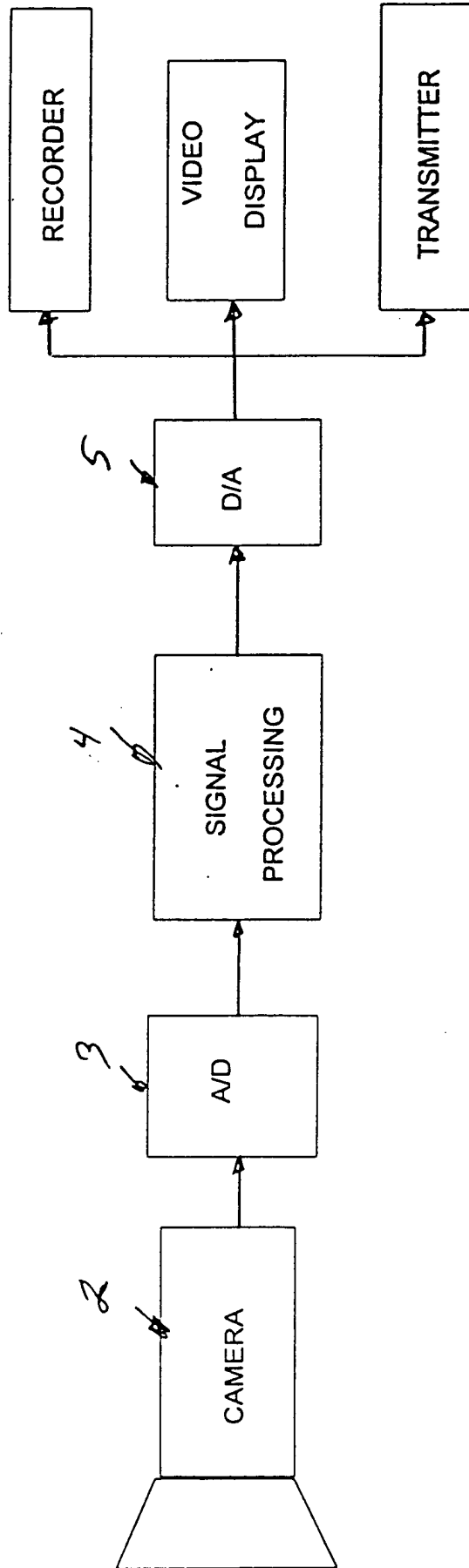


FIGURE 1

16 Figs

662260" 80540460

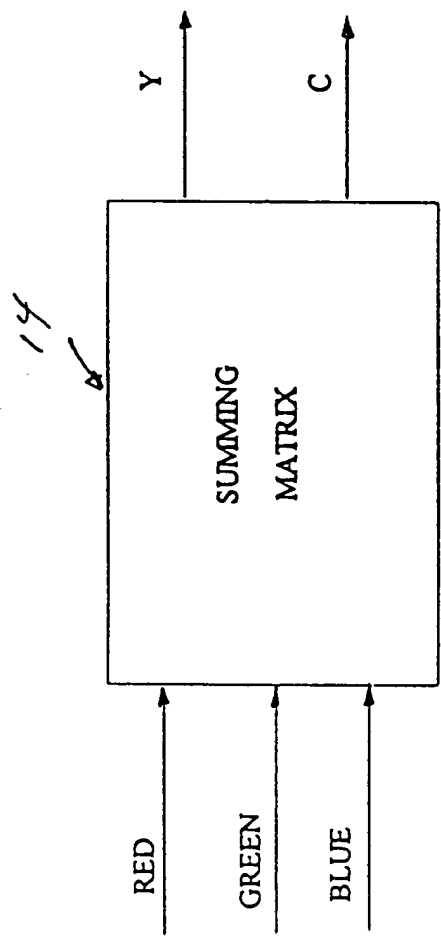



FIG. 2

The diagram illustrates the signal processing flow in a color television system. It starts with two main inputs: **LUMINANCE** and **CHROMINANCE**.

- The **LUMINANCE** input is split into two paths:
  - LOW PASS**: This path goes through a **LOW-PASS FIR FILTER**. The output is then fed into a **SUB** (subtractor) block and also into a **REGIONAL CONTROL TABLE MEMORY** block.
  - HIGH PASS**: This path goes directly into the **SUB** block.
- The **CHROMINANCE** input is split into two paths:
  - LOW PASS**: This path goes through a **MULTIPLIER** block. The output is then fed into a **SUM** (adder) block.
  - HIGH PASS**: This path goes through a **MULTIPLIER** block. The output is then fed into a **SUM** block.
- OPERATOR INPUTS**: These inputs are fed into the **REGIONAL CONTROL TABLE MEMORY** block and the **MULTIPLIER** blocks.
- The **REGIONAL CONTROL TABLE MEMORY** block outputs a **SELECT TABLE** signal to the **MULTIPLIER** blocks and a **GAIN** signal to the **MULTIPLIER** blocks.
- The **MULTIPLIER** blocks output **LOW PASS** and **HIGH PASS** signals to the **SUM** block.
- The **SUM** block outputs **ENHANCED LUMINANCE** and **DELAYED CHROMINANCE**.
- The **LOW PASS** and **HIGH PASS** signals from the **SUM** block are also fed into a **LIMITER** block, which outputs **ENHANCED LUMINANCE** and **DELAYED CHROMINANCE**.
- The **LOW PASS** and **HIGH PASS** signals from the **SUM** block are also fed into a **COMPENSATING DELAY** block, which outputs **ENHANCED LUMINANCE** and **DELAYED CHROMINANCE**.

FINITE LOCAL ENHANCEMENT  
BLOCK DIAGRAM

## GAIN TABLE MEMORY EXAMPLES

(WHITE) 

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

LOW PASS  
VALUES

(BLACK)

GAIN TABLE 0  
ALL VALUES = 0

GAIN TABLE 1  
ALL VALUES = 0.5

0.5
0.5
0.5
0.5
0.5
0.5
0.5
0.5

GAIN TABLE 2  
ALL VALUES = 1.0

1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0

GAIN TABLE 3  
ENHANCEMENT  
LEVEL 1

1.0
1.0
1.1
1.1
1.2
1.2
1.3
1.3

FIGURE 4A

FIGURE 4B

FIGURE 4C

FIGURE 4D

# GAIN TABLE MEMORY EXAMPLES

(WHITE)

1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7

LOW PASS  
VALUES

(BLACK)

1.0
1.1
1.2
1.4
1.6
1.9
2.3
2.7

1.0
1.1
1.3
1.5
2.0
2.5
3.0
3.5

1.0
1.2
1.5
1.8
2.2
2.7
3.3
4.0

GAIN TABLE 4  
ENHANCEMENT  
LEVEL 2

GAIN TABLE 5  
ENHANCEMENT  
LEVEL 3

GAIN TABLE 6  
ENHANCEMENT  
LEVEL 4

GAIN TABLE 7  
ENHANCEMENT  
LEVEL 5

FIGURE 4E

FIGURE 4F

FIGURE 4G

FIGURE 4H

**00000000000000000000**

VERT

H O R I Z

FIGURE 5A

[illegible]

VERT

H O R I Z

FIGURE 5B

# REGIONAL CONTROL TABLE

## MEMORY EXAMPLE 3

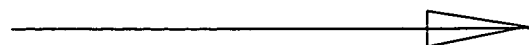
0940450"0940450



0	0	0	0	0	0	0	0	0
0	1	1	1	1	1	1	1	0
0	1	2	2	2	2	2	1	0
0	1	2	7	7	7	2	1	0
0	1	2	7	7	7	2	1	0
0	1	2	7	7	7	2	1	0
0	1	2	2	2	2	2	1	0
0	1	1	1	1	1	1	1	0
0	0	0	0	0	0	0	0	0

VERT

SMALL ENHANCED  
REGION SURROUNDED  
BY GRADUATED  
SOFTENING REGIONS



HORIZ

FIGURE 5C



# REGIONAL CONTROL TABLE

## MEMORY EXAMPLE 4

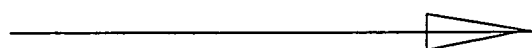
004450-00540460



VERT

7	7	7	7	7	2	2	2	2
7	7	7	7	7	2	2	2	2
7	7	7	7	7	2	2	2	2
7	7	7	7	7	2	2	2	2
7	7	7	7	7	2	2	2	2
7	7	7	7	7	2	2	2	2
7	7	7	7	7	2	2	2	2
7	7	7	7	7	2	2	2	2
7	7	7	7	7	2	2	2	2

SPLIT SCREEN  
LEFT SIDE ENHANCED  
RIGHT SIDE GAIN=1



HORIZ

FIGURE 5D

# REGIONAL CONTROL TABLE

## MEMORY EXAMPLE 5

662260" 30540460

↑

VERT

7	7	7	7	7	7	7	7	7
7	7	7	7	7	7	7	7	7
7	7	7	7	7	7	7	7	7
7	7	7	7	7	7	7	7	7
7	7	7	7	7	7	7	7	7
7	7	7	7	7	7	7	7	7
7	7	7	7	7	7	7	7	7
7	7	7	7	7	7	7	7	7
7	7	7	7	7	7	7	7	7

FULL SCREEN ENHANCED

→

HORIZ

FIGURE 5E